

CLAIMS

1. A cDNA encoding a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2.
2. The cDNA of claim 1 which comprises SEQ ID NO:1.
3. The cDNA of claim 1 which consists of SEQ ID NO:1.
- 5 4. An expression vector comprising a polynucleotide which encodes a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2.
5. The expression vector of claim 4 wherein the polynucleotide consists of SEQ ID NO:1.
6. A host cell comprising an expression vector which encodes a polypeptide
10 comprising the amino acid sequence shown in SEQ ID NO:2.
7. The host cell of claim 6 wherein the polynucleotide consists of SEQ ID NO:1.
8. A purified polypeptide comprising the amino acid sequence shown in SEQ ID NO:2.
- 15 9. The purified polypeptide of claim 8 which consists of the amino acid sequence shown in SEQ ID NO:2.
10. A fusion protein comprising a polypeptide having the amino acid sequence shown in SEQ ID NO:2.
11. A method of producing a polypeptide comprising the amino acid
20 sequence shown in SEQ ID NO:2, comprising the steps of:
culturing a host cell comprising an expression vector which encodes the polypeptide under conditions whereby the polypeptide is expressed; and
isolating the polypeptide.
12. The method of claim 11 wherein the expression vector comprises SEQ
25 ID NO:1.
13. A method of detecting a coding sequence for a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2, comprising the steps of:

hybridizing a polynucleotide comprising 11 contiguous nucleotides of SEQ ID NO:1 to nucleic acid material of a biological sample, thereby forming a hybridization complex; and

detecting the hybridization complex.

5 14. The method of claim 13 further comprising the step of amplifying the nucleic acid material before the step of hybridizing.

15 15. A kit for detecting a coding sequence for a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2, comprising:

a polynucleotide comprising 11 contiguous nucleotides of SEQ ID NO:1;

10 and

instructions for the method of claim 13.

16. A method of detecting a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2, comprising the steps of:

15 contacting a biological sample with a reagent that specifically binds to the polypeptide to form a reagent-polypeptide complex; and

detecting the reagent-polypeptide complex.

17. The method of claim 16 wherein the reagent is an antibody.

18. A kit for detecting a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2, comprising:

20 an antibody which specifically binds to the polypeptide; and

instructions for the method of claim 16.

19. A method of screening for agents which can regulate the activity of a human lipoxin A₄ receptor-like protein, comprising the steps of:

25 contacting a test compound with a polypeptide comprising an amino acid sequence selected from the group consisting of: (1) amino acid sequences which are at least about 50% identical to the amino acid sequence shown in SEQ ID NO:2 and (2) the amino acid sequence shown in SEQ ID NO:2; and

30 detecting binding of the test compound to the polypeptide, wherein a test compound which binds to the polypeptide is identified as a potential agent for regulating activity of the human lipoxin A₄ receptor-like protein.

20. The method of claim 19 wherein the step of contacting is in a cell.
21. The method of claim 19 wherein the cell is *in vitro*.
22. The method of claim 19 wherein the step of contacting is in a cell-free system.
- 5 23. The method of claim 19 wherein the polypeptide comprises a detectable label.
24. The method of claim 19 wherein the test compound comprises a detectable label.
25. The method of claim 19 wherein the test compound displaces a labeled
- 10 ligand which is bound to the polypeptide.
26. The method of claim 19 wherein the polypeptide is bound to a solid support.
27. The method of claim 19 wherein the test compound is bound to a solid support.
- 15 28. A method of screening for agents which regulate an activity of a human human lipoxin A₄ receptor-like protein, comprising the steps of:
- contacting a test compound with a polypeptide comprising an amino acid sequence selected from the group consisting of: (1) amino acid sequences which are at least about 50% identical to the amino acid sequence shown in SEQ ID NO:2 and (2)
- 20 the amino acid sequence shown in SEQ ID NO:2; and
- detecting an activity of the polypeptide, wherein a test compound which increases the activity of the polypeptide is identified as a potential agent for increasing the activity of the human lipoxin A₄ receptor-like protein, and wherein a test compound which decreases the activity of the polypeptide is identified as a potential agent for
- 25 decreasing the activity of the human lipoxin A₄ receptor-like protein.
29. The method of claim 28 wherein the step of contacting is in a cell.
30. The method of claim 28 wherein the cell is *in vitro*.
31. The method of claim 28 wherein the step of contacting is in a cell-free system.
- 30 32. The method of claim 28 wherein the activity is cyclic AMP formation.

33. The method of claim 28 wherein the activity is mobilization of intracellular calcium.

34. The method of claim 28 wherein the activity is phosphoinositide metabolism.

5 35. A method of screening for agents which regulate an activity of a human lipoxin A₄ receptor-like protein, comprising the steps of:

 contacting a test compound with a product encoded by a polynucleotide which comprises the nucleotide sequence shown in SEQ ID NO:1; and

 detecting binding of the test compound to the product, wherein a test
10 compound which binds to the product is identified as a potential agent for regulating the activity of the human lipoxin A₄ receptor-like protein.

 36. The method of claim 35 wherein the product is a polypeptide.

 37. The method of claim 35 wherein the product is RNA.

 38. A method of reducing activity of a human lipoxin A₄ receptor-like
15 protein, comprising the step of:

 contacting a cell with a reagent which specifically binds to a product encoded by a polynucleotide comprising the nucleotide sequence shown in SEQ ID NO:1, whereby the activity of a human lipoxin A₄ receptor-like protein is reduced.

 39. The method of claim 38 wherein the product is a polypeptide.

20 40. The method of claim 39 wherein the reagent is an antibody.

 41. The method of claim 38 wherein the product is RNA.

 42. The method of claim 41 wherein the reagent is an antisense oligonucleotide.

 43. The method of claim 41 wherein the reagent is a ribozyme.

25 44. The method of claim 38 wherein the cell is *in vitro*.

 45. The method of claim 38 wherein the cell is *in vivo*.

 46. A pharmaceutical composition, comprising:

 a reagent which specifically binds to a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2; and

30 a pharmaceutically acceptable carrier.

47. The pharmaceutical composition of claim 46 wherein the reagent is an antibody.

48. A pharmaceutical composition, comprising:
a reagent which specifically binds to a product of a polynucleotide
5 comprising the nucleotide sequence shown in SEQ ID NO:1; and
a pharmaceutically acceptable carrier.

49. The pharmaceutical composition of claim 48 wherein the reagent is a ribozyme.

50. The pharmaceutical composition of claim 48 wherein the reagent is an
10 antisense oligonucleotide.

51. The pharmaceutical composition of claim 48 wherein the reagent is an antibody.

52. A pharmaceutical composition, comprising:
an expression vector encoding a polypeptide comprising the amino acid
15 sequence shown in SEQ ID NO:2; and
a pharmaceutically acceptable carrier.

53. The pharmaceutical composition of claim 52 wherein the expression vector comprises SEQ ID NO:1.

54. A method of treating inflammation, comprising the step of:
20 administering to a patient in need thereof a therapeutically effective dose
of a reagent that inhibits a function of a human lipoxin A₄ receptor-like protein,
whereby symptoms of the inflammation are ameliorated.

55. The method of claim 54 wherein the reagent is identified by the method of claim 19.

25 56. The method of claim 54 wherein the reagent is identified by the method of claim 28.

57. The method of claim 54 wherein the reagent is identified by the method of claim 35.

58. A method of treating an allergic disorder, comprising the step of:

administering to a patient in need thereof a therapeutically effective dose of a reagent that inhibits a function of a human lipoxin A₄ receptor-like protein, whereby symptoms of the allergic disorder are ameliorated.

5 59. The method of claim 58 wherein the reagent is identified by the method of claim 19.

60. The method of claim 58 wherein the reagent is identified by the method of claim 28.

61. The method of claim 58 wherein the reagent is identified by the method of claim 35.

10 62. The method of claim 58 wherein the allergic disorder is asthma.